

Transmission Line Analysis of Beam Deflection in a BPM Stripline Kicker, G. CAPORASO, YU JU CHEN and BRIAN POOLE, *Lawrence Livermore National Laboratory*. The deflection of a high current relativistic electron beam in a BPM type stripline kicker is investigated analytically. The effects of the beam induced voltage on the deflection are included self-consistently. Expressions are obtained for the time dependent response of the exit beam transverse position as a function of beam current. These expressions are related to the usual impedance results for an ultra-relativistic beam.

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